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# A More Accurate Measure of Real Economic Growth

**F**ixed-weighted measures of output--gross domestic product (GDP) or gross national product--have been the primary measure of inflation-adjusted, or real, economic activity throughout the postwar period. As part of its quinquennial benchmark revision scheduled for this December, however, the Bureau of Economic Analysis (BEA) will switch to a chain-type annual-weighted measure of real GDP and its components. The revision will alter analysts' view of the trend in real economic growth and price changes, but it should not, in principle, affect perceptions of trends in nominal GDP. BEA will also change the base year used in reporting the traditional fixed-weighted measure of real GDP.<sup>1</sup>

Calculating nominal, or current-dollar, GDP is fairly straightforward, but the best method for calculating real economic activity is less clear. Nominal GDP is calculated by simply adding up the dollar values of the various components of final demand--that is, the value of all the goods and services that people, businesses, and governments produce. Real GDP, however, can be calculated in several ways, each of which has advantages and disadvantages.

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## Fixed-Weighted GDP

The fixed-weighted measure calculates real GDP using the prices of a specific year, called the base year. The current year's dollar value of each component of final demand is expressed in terms of its price in the base year, and the sum of the value of the components equals real GDP. The base year, which is currently 1987, is updated periodically--in recent decades, about every five years--and all of the historical data are revised at that time. Such a revision will occur in December when BEA shifts the base year to 1992.

The fixed-weighted measure has several advantages: it is easy to calculate; its interpretation is straightforward in that it uses the prices of one specific year (so it can be called "1987-dollar GDP," for example); and it permits analysts to calculate the contribution of each component of final demand to growth in GDP. The drawback of the fixed-weighted measure is that it does not accurately describe real economic activity when prices change a lot relative to those in the base year. For example, computers now cost only about 35 percent of what they cost in 1987 (after adjusting for changes in quality), but the price of food has increased 30 percent. Valuing currently produced computers at their high 1987 prices while valuing food at much lower 1987 prices greatly overstates the current importance of computer output relative to food output.

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1. For details of the revision and the chain-type annual-weighted index, see J. Steven Landefeld and Robert P. Parker, "Preview of the Comprehensive Revision of the National Income and Product Accounts: BEA's New Featured Measures of Output and Prices," *Survey of Current Business* (July 1995), pp. 31-38; and Allan H. Young, "Alternative Measures of Change in Real Output and Prices," *Survey of Current Business* (April 1992), pp. 32-48.

The problem of inappropriate weights becomes serious when the base year is too distant. Changes in relative prices therefore require periodic rebasing of the GDP data. During the postwar years, the base year has been changed a number of times. The years 1947, 1954, 1958, 1972, 1982, and 1987 have been used as base years.

The periodic rebasing of the fixed-weighted measure of real GDP causes significant revisions of real growth for previous decades. Each time a new base year is instituted and the data are revised back to 1929, the real growth rate of previous decades is reduced. For example, the average annual growth rate from 1972 to 1984 was reported to be 2.7 percent in 1982 dollars, but switching to 1987 dollars reduced measured average growth by 0.4 percentage points a year. Rebasing tends to reduce measured growth for the years before the new base year because it puts a smaller weight on the components of demand that have increased the least in price, and those sectors tend to be the fastest growing.

The repeated revisions also make most recessions appear milder than first reported. The decline in output during 1974, for example, was reported to be 1.4 percent using the 1972-dollar measure but only 0.6 percent using the 1987-dollar measure.

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## Chain-type Annual-Weighted GDP

Starting with its December revisions, the Bureau of Economic Analysis intends to feature the chain-type annual-weighted measure of GDP. The chain-type measure of the growth of real economic activity is calculated as the geometric average (the square root of the product) of two output indexes. One of these indexes values the change in output from the preceding year at that year's prices and the other does the reverse, valuing the change in output at the current year's prices. When the two output measures are averaged, therefore, both sets of prices play a role. The growth rates so calculated are then linked together in a composite chain index. For presentation

purposes, BEA will set the composite index equal to the nominal value of GDP in 1992.

The pros and cons of the chain-type measure are just the opposite of those of the fixed-weighted measure. The chain-type index yields a more accurate measure of real economic activity because it uses prices relevant to the period being considered, and it also reduces the need to revise historical data. Its drawbacks are that it is more difficult to calculate, and the components of real final demand do not sum to real GDP (the mathematics of geometric averages results in a residual component of total GDP growth that cannot be allocated to any category of final demand). BEA, however, will publish estimates of the contributions to growth made by each component of GDP.

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## An Altered View of Past Economic Growth

The chain-type method of calculating real GDP significantly alters the historical picture of real economic growth. The fixed-weighted procedure, using 1987 prices, is biased downward for the years before 1987 and upward for subsequent years. For example, that measure indicates that real growth averaged 3.1 percent a year between 1959 and 1987, whereas the new measure shows higher annual growth of 3.4 percent. Conversely, real growth between 1990 and 1994 averaged 2.2 percent a year using the current measure but 1.8 percent using the new measure. The overstatement of growth for recent years is particularly large for the last half of 1994 and the first half of this year (see Table B-1).

Growth rates for specific components of GDP can differ even more. Real business fixed investment, for example, grew an average of 5.3 percent a year between 1990 and 1994 using the fixed-weighted measure, compared with 3.3 percent using the chain-type measure.

Although BEA has provided the chain-type measure for a few years, detailed data have not been

readily available and BEA has not highlighted that measure. Consequently, few analysts have investigated the implications of the new measure for forecasting or policy analysis. Forecasts are affected in a number of ways by the interpretation of past events,

so the new data, by encouraging reinterpretation of the past, may influence future forecasts. However, the way in which forecasts may be affected, if at all, is not yet clear.

**Table B-1.**  
**Comparison of Growth Rates of Real GDP for Recent Quarters**

| Quarter  | Fixed<br>1987-Weighted<br>Measure | Chain-type<br>Annual-Weighted<br>Measure | Difference |
|----------|-----------------------------------|------------------------------------------|------------|
| 1994:I   | 3.3                               | 3.2                                      | 0.1        |
| 1994:II  | 4.1                               | 4.2                                      | -0.1       |
| 1994:III | 4.0                               | 3.6                                      | 0.4        |
| 1994:IV  | 5.1                               | 4.0                                      | 1.1        |
| 1995:I   | 2.7                               | 1.7                                      | 1.0        |
| 1995:II  | 0.5                               | -0.2                                     | 0.7        |

SOURCE: Congressional Budget Office using data from the Department of Commerce, Bureau of Economic Analysis.



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# Sequestration Update Report for Fiscal Year 1996

**T**he Budget Enforcement Act of 1990 amended the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget Act of 1974 to add new enforcement procedures for direct (mandatory) spending, receipts, and discretionary spending for fiscal years 1991 through 1995. The Omnibus Budget Reconciliation Act of 1993 extended the application of the new procedures through 1998. The law requires the Congressional Budget Office (CBO) to issue a sequestration preview report five days before the President's budget submission in January or February, a sequestration update report on August 15, and a final sequestration report 10 days after the end of a session of Congress. Those reports must contain estimates of the following items:

- o The discretionary spending limits and any adjustments to them;
- o The amount by which direct spending or receipt legislation enacted after the Budget Enforcement Act has increased or decreased the deficit; and
- o The amount of any required pay-as-you-go sequestration.

This report to the Congress and the Office of Management and Budget (OMB) provides the information required for the August 15 update of CBO's *Sequestration Preview Report for Fiscal Year 1996*. In addition to updating the information required in this report, the final report that CBO will issue 10 days after the current session of Congress ends must also assess whether a sequestration is required.

A sequestration will be triggered if enacted appropriations have exceeded the spending limits for 1996 or direct spending or receipt legislation has increased the total deficit for 1995 and 1996. Based on the levels of spending allowed under the budget resolution adopted earlier this year and on legislative action to date, CBO does not anticipate that any discretionary spending or pay-as-you-go sequestration will be required in 1996.

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## Discretionary Sequestration Report

The Omnibus Budget Reconciliation Act of 1993 (OBRA-93) established new limits on total discretionary budget authority and outlays for fiscal years 1996 through 1998. But it left in place the existing discretionary spending limits for 1993 through 1995 and the existing enforcement procedures, including specific instructions for adjusting the discretionary limits. The Violent Crime Control and Law Enforcement Act of 1994, enacted in September 1994, excluded spending from the Violent Crime Reduction Trust Fund (VCRTF) from the constraints of the existing caps. It also lowered those caps by the assumed amount of trust fund spending for each year that the caps would be in effect and established separate limits through 1998 on outlays resulting from VCRTF appropriations.

The estimates of the limits on total general-purpose (non-VCRTF) discretionary spending for 1995

through 1998 shown in Table C-1 differ from those in CBO's January 1995 preview report for three reasons. First, the estimates have been revised to reflect differences between the spending limits in CBO's preview report and those specified in OMB's preview report, which was included in the President's budget submission. Second, the limits have been increased to reflect emergency funds made available since OMB issued its preview report. Third, as required by the package of supplemental appropriations and rescissions enacted on July 27 (Public Law 104-19), the limits have been decreased to reflect the effect of

that legislation on nonemergency discretionary spending. The limits on the VCRTF are not subject to any adjustment, so they remain as presented in the January report.

### Differences Between the Limits in CBO's and OMB's Preview Reports

Amendments made by the Budget Enforcement Act (BEA) require both CBO and OMB to calculate

**Table C-1.**  
**CBO Estimates of Discretionary Spending Limits for Fiscal Years 1995 Through 1998 (In millions of dollars)**

|                                                                           | 1995             |             | 1996             |               | 1997             |               | 1998             |               |
|---------------------------------------------------------------------------|------------------|-------------|------------------|---------------|------------------|---------------|------------------|---------------|
|                                                                           | Budget Authority | Outlays     | Budget Authority | Outlays       | Budget Authority | Outlays       | Budget Authority | Outlays       |
| General-Purpose Spending Limits in CBO's January 1995 Preview Report      | 517,067          | 546,438     | 512,891          | 546,714       | 521,234          | 543,276       | 523,098          | 541,128       |
| Adjustments                                                               |                  |             |                  |               |                  |               |                  |               |
| Technical differences from OMB's February 1995 preview report             | 0                | 1           | 4,492            | 2,670         | 8,682            | 6,213         | 12,989           | 10,474        |
| Emergency 1995 appropriations enacted since OMB's preview report          | 5,930            | 1,401       | 3,275            | 1,387         | 0                | 2,131         | 0                | 2,032         |
| Contingent emergency appropriations designated since OMB's preview report | 542              | 197         | 0                | 168           | 0                | 98            | 0                | 54            |
| Reduction required by P.L. 104-19                                         | <u>-15,295</u>   | <u>-599</u> | <u>0</u>         | <u>-3,149</u> | <u>-55</u>       | <u>-2,659</u> | <u>0</u>         | <u>-2,168</u> |
| Total                                                                     | -8,823           | 1,000       | 7,767            | 1,076         | 8,627            | 5,783         | 12,989           | 10,392        |
| General-Purpose Spending Limits as of August 15, 1995                     | 508,244          | 547,438     | 520,658          | 547,790       | 529,861          | 549,059       | 536,087          | 551,520       |
| Violent Crime Reduction Trust Fund Spending Limits                        | 2,423            | 703         | 4,287            | 2,334         | 5,000            | 3,936         | 5,500            | 4,904         |
| Total Discretionary Spending Limits                                       | 510,667          | 548,141     | 524,945          | 550,124       | 534,861          | 552,995       | 541,587          | 556,424       |

SOURCE: Congressional Budget Office.

NOTE: OMB = Office of Management and Budget; P.L. = Public Law.

changes to the discretionary spending limits specified in the act. OMB's estimates of the limits are controlling, however, in determining whether enacted appropriations are within the limits or a sequestration is required to eliminate a breach of the limits. CBO's estimates are advisory. In acknowledgement of OMB's statutory role, when CBO calculates changes in the limits for a report, it first adjusts for the differences between the limits in its most recent report and the limits in OMB's most recent report--in effect, using OMB's official estimates as the starting point for the adjustments that CBO is required to make in the new report.

The spending limits for 1995 in CBO's January 1995 preview report were essentially the same as those in OMB's February 1995 preview report: CBO's estimate of the budget authority limit was the same as OMB's, and CBO's estimate of the outlay limit was only \$1 million lower than OMB's. That difference merely reflects different assumptions about the rate at which \$44 million in emergency appropriations will be spent (the spendout rate); those appropriations were released by the President to fund economic development programs and assistance to victims of natural disasters.

CBO's estimates for the years after 1995, however, were dramatically lower than OMB's. In 1998, CBO's spending caps were lower than OMB's by \$13 billion in budget authority and \$10.5 billion in outlays.

The principal source of the dramatic difference between CBO's and OMB's projections of the discretionary spending caps is the agencies' different interpretation of the rules governing inflation adjustments. The BEA amendments required that both preview reports include adjustments to the limits to account for differences between actual inflation and inflation estimated at the time the BEA was enacted. For the years before 1995, CBO and OMB agreed that an adjustment equal to the ratio of actual inflation in the previous fiscal year to inflation projected for that year should be applied to the spending limits for all years in which they are in effect.

OMB changed its method of adjusting for inflation in its February 1995 preview report. It based that change on provisions in OBRA-93 that extended

the discretionary spending limits through 1998. OMB's adjustments in that report were based on the ratio of OMB's forecast of inflation in 1996, 1997, and 1998 (as reflected in the President's budget submission) to inflation projected for those years when OBRA-93 was enacted. Although CBO believes that OMB's change in method is not warranted by the provisions of OBRA-93 (the conference report on OBRA-93 stated that the legislation "retains, with minor technical and conforming changes, the current law's procedures for periodically adjusting the discretionary spending limits"), CBO will continue to use the OMB-adjusted limits as the starting point for its reports.

In comparison with CBO's adjustments, which reflect only changes that result from the difference between projected and actual inflation for the previous fiscal year (1994), OMB's prospective adjustments steadily increase the maximum budget authority and outlays allowed under the caps. For 1996, OMB's inflation adjustment increases the limits on outlays by \$1.8 billion relative to its estimate of the cap in its December 1994 final report, a figure that climbs to \$5.1 billion in 1997 and \$8.9 billion in 1998. CBO's adjustment, which results from an actual 1994 inflation rate that was lower than expected when the discretionary limits were established, decreases the limits by \$571 million in 1996. These reductions reach \$1 billion in 1997 and \$1.3 billion in 1998. The total effect of the opposite inflation adjustments on the limits in 1998 is approximately \$13 billion in budget authority and \$10.2 billion in outlays.

The second largest source of variance between the discretionary spending limits contained in CBO's and OMB's preview reports is also a difference in interpretation of the law. OMB's caps reflect outlay increases of \$171 million in 1996, \$62 million in 1997, and \$259 million in 1998 as a result of reestimates of enacted emergency legislation. CBO, however, believes that the Budget Enforcement Act does not allow adjustments for reestimates of the costs of legislation and so does not include any.

Other sources of difference between CBO's and OMB's estimates of the caps include changes in concepts and definitions and differing estimates for the spendout rate of emergency appropriations released

by the President. Approximately \$80 million of the \$152 million in cumulative changes in outlays categorized as changes in concepts and definitions is the result of different estimates of various provisions of 1995 appropriation acts; the remainder is attributable to a change in the calculation of the subsidy cost of loan guarantees from the Community Opportunity Funds program to conform with the provisions of the Credit Reform Act of 1990. Annual changes that result from differing estimates of spendout rates for emergency appropriations put CBO's estimates between \$2 million below and \$4 million above OMB's annual estimates, but they sum to zero over the 1995-1998 period.

### **Emergency Funding Made Available Since OMB's Preview Report**

The discretionary spending limits are also adjusted to reflect emergency appropriations made available since OMB's preview report. The largest adjustment is for the \$3.5 billion in 1995 emergency budget authority provided in the recently enacted supplemental appropriations and rescissions act (P.L. 104-19) for disaster assistance and antiterrorism activities (including recovery from the Oklahoma City bombing). Additional 1995 budget authority of \$2.5 billion was provided in the Emergency Supplemental Appropriations and Rescissions for the Department of Defense to Preserve and Enhance Military Readiness Act of 1995 (P.L. 104-6). The President's release of contingent emergency appropriations--largely relating to recovery from natural disasters--adds another \$542 million in 1995 budget authority to the totals in OMB's preview report. Those appropriations raise the outlay limits by \$1.6 billion in 1995 and 1996, \$2.2 billion in 1997, and \$2.1 billion in 1998.

### **Required Revision to Reflect Reduction in Nonemergency Spending**

Section 2003 of the supplemental appropriations and rescissions package (P.L. 104-19) required downward adjustments to the discretionary spending limits equal to the total effect of the legislation on non-emergency budget authority and outlays. CBO estimates that the discretionary nonemergency provi-

sions reduced 1995 budget authority by \$15.3 billion, with minor effects on budget authority in future years. The resulting outlay reductions are \$599 million in 1995, \$3.2 billion in 1996, \$2.7 billion in 1997, and \$2.2 billion in 1998. As required, CBO has adjusted the caps by those amounts.

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## **Pay-As-You-Go Sequestration Report**

If legislated changes in direct spending programs or governmental receipts enacted since the Budget Enforcement Act increase the combined current and budget year deficits, a pay-as-you-go sequestration is triggered at the end of the Congressional session, and nonexempt mandatory programs are cut enough to eliminate the increase. The pay-as-you-go provisions of the BEA applied through fiscal year 1995, and OBRA-93 extended them through 1998.

The Budget Enforcement Act requires both CBO and OMB to estimate the net change in the deficit resulting from direct spending or receipt legislation. As is the case with the discretionary spending limits, however, OMB's estimates are controlling in determining whether a sequestration is required. CBO therefore adopts OMB's estimates of changes in the deficit at the end of the previous session of Congress as the starting point for this report.

CBO's estimates of changes in the deficit for 1995 through 1998 resulting from direct spending or receipt legislation enacted since the Budget Enforcement Act are shown in Table C-2. Those estimates include OMB's estimates of changes in the deficit resulting from legislation enacted through the end of the 103rd Congress but exclude changes in the deficit for 1996 through 1998 resulting from legislation enacted before OBRA-93 (the pay-as-you-go procedures did not apply to those years until OBRA-93 was enacted). Deficit reduction contained in OBRA-93 is also excluded, as required by law.

The only significant change to the pay-as-you-go totals thus far in the 104th Congress results from the Self-Employed Health Insurance Act of 1995 (P.L. 104-7). That legislation, which affects receipts and



outlays, both extends and enriches a deduction available to self-employed individuals for the cost of health insurance and denies the earned income tax credit to otherwise-eligible individuals whose annual investment income exceeds \$2,350. The changes in direct spending and revenues attributable to the act, added to the combined net deficit reduction of \$2.2

billion for 1995 and 1996 that OMB estimated in its preview report, yield a net decrease in the combined 1995 and 1996 deficits of \$1.8 billion. The only other legislation enacted in 1995 tallied under the pay-as-you-go procedures--the District of Columbia Emergency Highway Relief Act (P.L. 104-21)--reduces outlays in 1997 and 1998.

**Table C-2.**  
**Budgetary Effects of Direct Spending or Receipt Legislation**  
**Enacted Since the Budget Enforcement Act (By fiscal year, in millions of dollars)**

| Legislation                                                     | 1995   | 1996 | 1997 | 1998 |
|-----------------------------------------------------------------|--------|------|------|------|
| Total for OMB's February 1995 Preview Report <sup>a</sup>       | -2,009 | -148 | -357 | -9   |
| Legislation Enacted Since OMB's Preview Report                  |        |      |      |      |
| Self-Employed Health Insurance Act (P.L. 104-7) <sup>b</sup>    | 248    | 83   | -67  | -68  |
| District of Columbia Emergency Highway Relief Act (P.L. 104-21) | 0      | 0    | -2   | -2   |
| Change in the Deficit Since the Budget Enforcement Act          | -1,761 | -65  | -426 | -79  |

SOURCE: Congressional Budget Office.

NOTES: OMB = Office of Management and Budget; P.L. = Public Law.

The following bills affected direct spending but did not increase or decrease the deficit by as much as \$500,000 in any year through 1998: Congressional Accountability Act (P.L. 104-1); District of Columbia Financial Responsibility and Management Assistance Act (P.L. 104-8); Paperwork Reduction Act (P.L. 104-13); An Act to Permit Medicare Select Policies in All States (P.L. 104-18).

a. Section 254 of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended by the Budget Enforcement Act of 1990, calls for a list of all bills enacted since the Budget Enforcement Act that are included in the pay-as-you-go calculation. Because the data in this table assume OMB's estimate of the total change in the deficit resulting from bills enacted through the end of the 103rd Congress, readers are referred to the list of those bills included in Table 6 of the *OMB Final Sequestration Report to the President and Congress for Fiscal Year 1995* (December 16, 1994) and in previous sequestration reports issued by OMB.

b. Includes reductions in receipts and outlays.



# CBO Projections of National Health Expenditures Through 2005

**T**he projected growth of the federal deficit under current law stems largely from the continued double-digit growth rates of Medicare (the large federal health insurance plan for the aged and disabled) and Medicaid (the joint federal/state insurance system for the poor). Until recently, Medicare and Medicaid mirrored private health insurance, and the rapid growth of those programs was symptomatic of the rapid growth of health spending in general. Recent changes in the structure of private health insurance, however, have led to a surge of competitive pricing and have significantly slowed the growth of private health spending. This appendix summarizes the Congressional Budget Office's (CBO's) latest projections of national health expenditures, highlighting the dramatic changes taking place in the health economy.

To some extent, changes spearheaded by the private sector will spill over to the Medicare and Medicaid programs. But there are some limitations on how effectively the public programs can replicate the cost savings in the private sector. Under current law, the open-ended nature of fee-for-service Medicare and the formulas that Medicare uses to pay health maintenance organizations (HMOs) prevent the program from taking full advantage of the changes taking place in the private sector. The trend in Medicaid outlays is also extremely uncertain. Medicaid's payment rates are generally below the rates paid by Medicare and private insurers; many states are shifting to managed care for poor families; and managed care for the disabled and those in nursing homes is largely untried. Moreover, some of the states' recent efforts also include expansions of coverage.

Budget plans the Congress is considering would reduce the growth of Medicare and federal contributions to Medicaid. If implemented, they would also reduce national health spending. The amount would depend on the methods that the Congress chose to achieve its budget targets.

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## Changes in the Health Economy

In recent decades, U.S. health spending has grown very rapidly, mainly because consumers of health care have had little incentive to economize on health spending and because providers of health services have focused on diagnosis and treatment, not on cost. People often delegate decisions about health treatments to health providers, primarily their doctors and the hospitals in which their doctors practice. Until recently, private insurance companies paid the reasonable and customary charges of those providers, and government insurance programs generally paid providers based on their costs. Those insurance arrangements gave providers an incentive to develop new, high-cost procedures--which had no customary charge and for which high charges seemed reasonable--and allowed the health sector to expand with little restraint. The ultimate costs of those expensive new services were reflected in government budgets and, for workers with employment-based health insurance, in employees' noncash compensation.

Although the rapid growth of health spending contributed to rising taxes or government deficits,

slow growth of cash pay, and rising numbers of people without health insurance, the connection was not always direct or apparent. People did not benefit individually by taking actions to slow the growth of their health spending.

All of that is beginning to change. After several years of extremely rapid growth, spending for health care--especially by private payers--has slowed. Unlike traditional insurers, managed care plans actively purchase health care instead of passively paying the bills. These new plans, led by HMOs, have the potential to control the growth of health spending on behalf of their enrollees. Since the mid-1980s, the market share of managed care plans has increased dramatically. Since about 1990, the market dominance of traditional fee-for-service health insurance has shrunk, and the emergent managed care plans--taking advantage of the excess capacity that fee-for-service insurance had encouraged--have helped touch off a hotly competitive response to the problems of the health economy.

The development of price competition among health plans and providers in the 1990s probably reflects the confluence of many interrelated factors. The recession of 1990-1991, like the previous recession of 1981-1982, highlighted the need for efforts to control health payments. During both downturns, the growth in health spending remained strong while government tax revenues and private incomes--the funding resources for health care--were under economic pressure.

By the early 1990s, enrollment in managed care plans had grown to levels that providers of health care services found increasingly difficult to ignore, improving the ability of plans to contract with hospitals and doctors at favorable terms. Those price discounts, combined with the potential that managed care plans have to reduce the use of health services below what would be expected under fee-for-service reimbursement, have allowed managed care plans to achieve significant cost advantages over traditional insurance plans.

As some businesses have used managed care to help slow the premium increases faced by their workers, other businesses have felt pressure to keep up. If a company finds that its employees are amenable to

managed care, it can use the savings to pay its workers more, leaving businesses that do not find ways to slow premium growth at a competitive disadvantage in attracting and retaining a skilled workforce.

Finally, plans found that they could establish and expand the looser independent practice association (IPA) form of health maintenance organization much more rapidly than group- or staff-model HMOs. Many traditional insurers formed preferred provider organizations (PPOs), which offer HMO-style benefits (low fixed copayments) if the enrollee uses the PPO network. These new plans found a climate fertile for cost control, and their market share expanded rapidly.

Managed care plans and the price competition they have spawned are helping to offset (rather than eliminate) some of the root problems that have weakened incentives for cost containment in the health sector. Enrollees of managed care plans still delegate much decisionmaking to the plans' health providers and still have no financial incentive, as patients, to economize on services they request. But the incentives for providers under managed care plans can be dramatically different from the incentives they faced under traditional insurance. Fee-for-service providers had an economic incentive to maximize the number of billable services they performed. Many managed care providers, however, receive capitated payments, a fixed amount per patient regardless of the number of services provided. Providers receiving capitation payments have an incentive to maximize the number of patients in their practice. As more payments are made through capitation, the incentive for excessive volume of services switches to an incentive to provide less care. Managed care providers can increase their income by keeping their patients healthy and avoiding unnecessary services (a desirable social outcome) or by withholding appropriate care (an undesirable result).

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## CBO Projections of Health Spending

In 1965, national health spending constituted less than 6 percent of U.S. gross domestic product (GDP).

In 1995, health spending will total an estimated \$1 trillion, or 14 percent of GDP. Assuming that federal laws do not change, CBO projects that national health expenditures will grow to 16 percent of GDP in 2000 and to 18 percent in 2005 (see Table D-1).

CBO estimates that spending for health care grew about 6 percent in 1994, the slowest rate in 30 years, and will grow about 7 percent in 1995. Private health insurance premiums show correspondingly slow rates of growth: 5 percent in 1994 and almost 6 percent in

**Table D-1.**  
**National Health Expenditures for Selected Calendar Years, by Source of Funds**

| Source of Funds                                                                          | Actual      |             |             |             |             | Projected   |             |             |
|------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                                                                          | 1965        | 1980        | 1985        | 1990        | 1993        | 1995        | 2000        | 2005        |
| <b>In Billions of Dollars</b>                                                            |             |             |             |             |             |             |             |             |
| Private                                                                                  | 31          | 146         | 259         | 410         | 496         | 552         | 770         | 1,051       |
| Public                                                                                   |             |             |             |             |             |             |             |             |
| Federal                                                                                  | 5           | 72          | 123         | 196         | 281         | 334         | 528         | 821         |
| State and local                                                                          | <u>5</u>    | <u>33</u>   | <u>52</u>   | <u>91</u>   | <u>107</u>  | <u>121</u>  | <u>174</u>  | <u>247</u>  |
| Total                                                                                    | 42          | 251         | 434         | 697         | 884         | 1,008       | 1,472       | 2,119       |
| <b>As a Percentage of Total Expenditures</b>                                             |             |             |             |             |             |             |             |             |
| Private                                                                                  | 75.3        | 58.1        | 59.7        | 58.9        | 56.1        | 54.8        | 52.3        | 49.6        |
| Public                                                                                   |             |             |             |             |             |             |             |             |
| Federal                                                                                  | 11.6        | 28.7        | 28.4        | 28.1        | 31.7        | 33.2        | 35.8        | 38.8        |
| State and local                                                                          | <u>13.2</u> | <u>13.3</u> | <u>11.9</u> | <u>13.0</u> | <u>12.1</u> | <u>12.0</u> | <u>11.8</u> | <u>11.6</u> |
| Total                                                                                    | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       |
| <b>Average Annual Growth Rate from Previous Year Shown (Percent)</b>                     |             |             |             |             |             |             |             |             |
| Private                                                                                  | *           | 10.8        | 12.2        | 9.6         | 6.6         | 5.5         | 6.9         | 6.4         |
| Public                                                                                   |             |             |             |             |             |             |             |             |
| Federal                                                                                  | *           | 19.7        | 11.4        | 9.7         | 12.7        | 9.1         | 9.6         | 9.3         |
| State and local                                                                          | *           | 12.8        | 9.2         | 11.9        | 5.7         | 6.3         | 7.5         | 7.2         |
| National Health Expenditures                                                             | *           | 12.7        | 11.6        | 9.9         | 8.3         | 6.8         | 7.9         | 7.6         |
| <b>Memorandum:</b>                                                                       |             |             |             |             |             |             |             |             |
| Gross Domestic Product<br>(Billions of dollars) <sup>a</sup>                             | 703         | 2,708       | 4,039       | 5,546       | 6,343       | 7,127       | 9,128       | 11,772      |
| Average Annual Growth of Gross<br>Domestic Product from Previous<br>Year Shown (Percent) | *           | 9.4         | 8.3         | 6.5         | 4.6         | 6.0         | 5.1         | 5.2         |
| National Health Expenditures<br>as a Percentage of<br>Gross Domestic Product             | 5.9         | 9.3         | 10.8        | 12.6        | 13.9        | 14.1        | 16.1        | 18.0        |

SOURCE: Congressional Budget Office.

NOTE: \* = not applicable.

a. Economic assumptions reflect the Congressional Budget Office's forecast of January 1995.

1995. The growth of private health insurance premiums will average about 7 percent a year between 1995 and 2005. Federal spending for Medicare and Medicaid is projected to increase by 10 percent a year under current law.

Government spending on health care has risen from 40 percent of total health spending in 1985 to an estimated 45 percent in 1995 and will account for over 50 percent of total health spending by 2005. Increases in federal outlays account for all of the projected growth in the public share of health spending under current law. Although state government initiatives--especially for Medicaid--are inherently unpredictable, CBO assumes that the share of health spending paid by state and local governments will remain steady at about 12 percent of the total.

## Alternative Scenarios for Growth of Private Health Spending

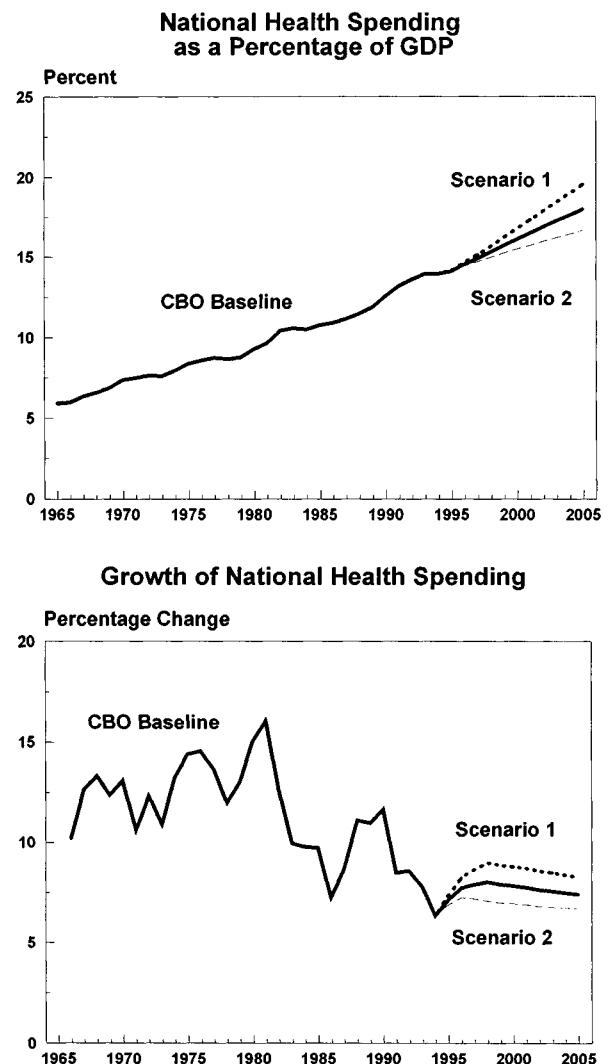
Whether the recent trends toward price competition will continue to moderate the growth of health spending is highly uncertain. Previous slowdowns in the growth of health spending--in the late 1970s and mid-1980s, for example--proved temporary. Health economists and policy experts are divided about whether the current moderate growth of health premiums will persist. To illustrate some possibilities, CBO has computed the path of health spending under two alternative scenarios: one in which growth in health spending accelerates and one in which the slowdown continues.

### Scenario 1: Rapid Growth Returns

The possibility that the current slowdown in private health spending could turn out to be more of a short-term aberration than a long-term trend has been raised by several analysts.<sup>1</sup> To illustrate this possi-

bility, Scenario 1 assumes that the current slowdown in private-sector health spending is temporary and that the growth of private insurance premiums and out-of-pocket payments reverts to historical trends. Specifically, the growth of private health spending gradually rises to 2 percentage points a year above the baseline. National health expenditures under this

**Figure D-1.**  
**National Health Expenditures Under Alternative Scenarios for Growth in Private Health Spending (By calendar year)**



SOURCE: Congressional Budget Office.

NOTE: Scenario 1 assumes that growth in private health spending is 2 percentage points higher than in the baseline. Scenario 2 assumes that growth is 2 percentage points lower.

1. See, for example, Henry Aaron, "Thinking Straight about Medical Costs," and Katharine Levit and others, "National Health Spending Trends, 1960-1993," both in *Health Affairs* (Winter 1994).

scenario would account for 19.5 percent of the economy in 2005, closer to CBO's previous projections.<sup>2</sup> Health spending would grow by about 8.5 percent a year in the projection period compared with about 7.7 percent a year in the baseline (see Figure D-1).

## Scenario 2: The Slowdown Continues

Although some health economists doubt that the slowdown in private spending will continue, many observers from private health plans believe that it can go on indefinitely. For example, when CBO convened a panel of outside experts to discuss these projections in December 1994, representatives from large health plans generally believed that continued restraint was likely. Under Scenario 2, the current moderate growth of private insurance premiums and out-of-pocket spending persists throughout the projection period. Specifically, their growth gradually falls to 2 percentage points a year below the baseline projection. Under Scenario 2, health spending would account for 16.7 percent of the economy in 2005 compared with CBO's baseline projection of 18.0 percent. Total spending under this alternative would grow by about 6.9 percent each year compared with average annual growth of 7.7 percent in the baseline.

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## Impact of the Budget Resolution

The Congress has resolved to reduce the average rate of growth of Medicare spending to 6.3 percent a year between fiscal years 1995 and 2002, down from the 10.3 percent annual rate expected under current law. The growth of federal contributions for Medicaid would slow from 10.4 percent a year under current law to about 4.8 percent annually under the budget resolution. Slower growth of Medicare and Medicaid would in turn reduce the growth of national health spending. Depending on exactly how the growth of those programs is slowed, the outlook for national health spending could be substantially changed.

The budget resolution calls for Medicare outlays (net of premiums collected from beneficiaries) to grow by 6.3 percent. Raising premiums for Supplementary Medical Insurance (SMI, or Part B of Medicare) would have no effect on national health spending if everyone continued to participate. Increasing beneficiaries' cost sharing by raising deductibles or coinsurance would slightly reduce national health spending. The 15 percent of beneficiaries without supplementary coverage that pays for cost sharing (either through Medicaid or a private medigap plan) would use fewer health services if they had to bear a greater share of coinsurance. Their out-of-pocket payments would increase, but not by as much as government payments would decline. Beneficiaries with supplemental insurance coverage would pay higher medigap premiums if cost sharing was increased, and some might therefore drop their medigap coverage. But for most beneficiaries, increased private medigap payments would simply offset the decreased federal payments.

Cutting Medicare reimbursement rates to providers would tend to reduce national health spending, although health care providers would be likely to partly offset a reduction in rates by increasing the volume of services performed. Also, some researchers have theorized that past cuts in Medicare reimbursement have spurred health providers to increase their charges to private patients and their insurers, further offsetting the government's cuts. Because most private health insurers now purchase care directly from providers, however, often under capitation arrangements, there may be less room for such cost shifting today. Capitated providers could not simply bill more and extract additional payments to offset the Medicare cuts. Rate reductions in Medicare might even make private payers seek lower rates as well.

The Congress has proposed to reduce the growth of Medicaid spending to 4.8 percent a year in the 1996-2002 period. The impact of that reduction on national health spending would depend on how states reacted and on whether the states were subject to maintenance-of-effort or other matching requirements. If the growth in states' spending continued at currently projected levels, then national spending would fall roughly in line with the federal reductions.

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2. CBO's health projections were introduced in *Projections of National Health Expenditures*, CBO Study (October 1992) and updated in *Projections of National Health Expenditures: 1993 Update*, CBO Paper (October 1993).

If states cut the growth of their Medicaid spending in line with the federal outlays, then national health spending would fall by more than the federal cuts

would imply. If states instead increased their Medicaid outlays, then the impact on national health spending would be less than the federal cuts alone.



# Major Contributors to the Revenue and Spending Projections

The following Congressional Budget Office analysts prepared the revenue and spending projections in this report:

## Revenue Projections

|                  |                                                                       |
|------------------|-----------------------------------------------------------------------|
| Mark Booth       | Corporate income taxes, Federal Reserve System earnings, excise taxes |
| Drew McMorrow    | Excise taxes                                                          |
| Peter Ricoy      | Social insurance contributions, estate and gift taxes                 |
| Melissa Sampson  | Customs duties, miscellaneous receipts                                |
| David Weiner     | Individual income taxes                                               |
| Stephanie Weiner | Customs duties, miscellaneous receipts                                |

## Spending Projections

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|                      |                                                                  |
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| Kent Christensen     | Defense                                                          |
| Sunita D'Monte       | International affairs                                            |
| Victoria Fraider     | Veterans' education and housing, defense (weapons)               |
| Michael Groarke      | Veterans' housing and medical care                               |
| Raymond Hall         | Defense (weapons)                                                |
| Mary Helen Petrus    | Veterans' compensation, pensions, and medical care               |
| Amy Plapp            | Defense (personnel)                                              |
| Jeannette Van Winkle | Defense (weapons)                                                |
| JoAnn Vines          | Defense (weapons)                                                |
| Joseph Whitehill     | International affairs                                            |

*Human Resources*

|                   |                                                                                  |
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| Wayne Boyington   | Civil Service Retirement, Social Security, Pension Benefit Guarantee Corporation |
| Sheila Dacey      | Aid to Families with Dependent Children, child support enforcement               |
| Scott Harrison    | Medicare                                                                         |
| Christie Hawley   | Unemployment insurance, training programs                                        |
| Jean Hearne       | Medicaid                                                                         |
| Anne Hunt         | Public Health Service                                                            |
| Deborah Kalcevic  | Education                                                                        |
| Justin Latus      | Education, foster care, child care                                               |
| Lisa Layman       | Medicare                                                                         |
| Jeffrey Lemieux   | Federal employee health benefits, national health expenditures                   |
| Dorothy Rosenbaum | Social services, food stamps, child nutrition                                    |
| Robin Rudowitz    | Medicaid                                                                         |
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| Kim Cawley       | Energy, pollution control and abatement                            |
| Rachel Forward   | Commerce                                                           |
| Mark Grabowicz   | Justice, Postal Service                                            |
| Kathleen Gramp   | Energy, science and space                                          |
| Victoria Heid    | Conservation and land management, Outer Continental Shelf receipts |
| David Hull       | Agriculture                                                        |
| Craig Jagger     | Agriculture                                                        |
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| David Moore      | Spectrum auction receipts                                          |
| John Patterson   | Transportation                                                     |
| Deborah Reis     | Recreation, water transportation                                   |
| John Righter     | General government                                                 |
| Rachel Robertson | Community and regional development, disaster assistance            |
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| John Webb        | Commerce                                                           |

*Other*

|                 |                                            |
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| Edward Blau     | Authorization bills                        |
| Jodi Capps      | Appropriation bills                        |
| Karin Carr      | Budget projections, historical budget data |
| Betty Embrey    | Appropriation bills                        |
| Kenneth Farris  | Computer support                           |
| Vernon Hammett  | Computer support                           |
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|--------------------|-----------------------------------------|
| Daniel Kowalski    | Credit programs, other interest         |
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